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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,237	06/27/2003	Leping Huang	863.0040.U1(US)	8570
29683	7590	10/03/2007		
HARRINGTON & SMITH, PC 4 RESEARCH DRIVE SHELTON, CT 06484-6212			EXAMINER CHO, HONG SOL	
			ART UNIT	PAPER NUMBER
			2616	
			MAIL DATE	DELIVERY MODE
			10/03/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/608,237

Applicant(s)

HUANG, LEPING

Examiner

Hong Cho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 August 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-30 is/are allowed.
- 6) ☐ Claim(s) 1-3, 10-14, 21 and 22 is/are rejected.
- 7) ☒ Claim(s) 4-9 and 15-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

1. The following is in response to the amendments filed on 08/22/2007. Claims 1-30 are pending in this application.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 10-13, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cain (US 6961310) in view of Roginsky (US 6034946), hereinafter referred to as Roginsky.

Re claims 1 and 12, Cain discloses a wireless network comprised a source node (figure 2, element 1), a destination node 4 (figure 2, element 4) and intermediate nodes (figure 2, elements 2, 3 and 5) (*a wireless network comprised of end nodes and at least one intermediate node*). Cain discloses the source node 1 initiating a route search by sending out route request packet (*at an originating node of a session with a destination node, initiating a route search by sending a Route Request message*, column 5, lines 9-

16), the destination node generating a route reply packet to the source node with link delay metric (*at the destination node, or another node having knowledge of the destination node, replying to the originating node with a Route Reply message when there is a valid route, where route delay information relative to the responding node is contained within the Route Reply message*, column 5, lines 34-37). Cain fails to disclose explicitly selecting a route with a smallest route delay to send a packet. Roginsky discloses selecting a best route to the destination with smallest delay (column 2, lines 48-51). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Cain by adding to it the feature of selecting a best route with smallest delay for the benefit of providing network service with minimal delay via a route with smallest delay.

Re claims 2 and 13, Cain discloses a source node initiating a new route discovery in case of route failure (*if either one of the originating node or the destination node detect a violation of path Quality of Service, initiating a re-route search*, column 7, lines 3-11).

Re claims 10, 11, 21 and 22, Cain discloses the network operating in accordance with an Ad Hoc On-Demand Distance Vector (AODV) routing protocol (column 7, lines 55-56).

Claims 3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cain in view of Roginsky and further in view of Ricciulli (US 20040022194).

Re claims 3 and 14, Cain discloses all of the limitations of the base claim, but fails to disclose initiating a re-route search if the route delay exceeds a threshold route

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delay value. Ricciulli discloses selecting a new route if the measured delay on a given route is predefined threshold value (paragraph [0056], lines 5-10). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the network of Cain to implement the feature of determining if the measured delay on a given route is predefined threshold value to initiate route search for the benefit of improving the quality of transmission.

***Allowable Subject Matter***

4. Claims 4-9 and 15-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. Claims 23-30 are allowable.

***Response to Arguments***

6. Applicant's arguments with respect to claims 1 and 12 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Cho whose telephone number is 571-272-3087.

The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

hc  
Hong Cho  
Patent Examiner  
9/17/07